adv.

Dr. HENRY A. MARTIN'S
LANCET IVORY VACCINE POINTS.

BOSTON, U.S.A.,
June 11th, 1881.

Messrs. KROHNE and SESEMANN,

GENTLEMEN,

I willingly accede to your request that I should write a short paper on the "Lancet" ivory vaccine "points," especially for publication in connection with your proposed display of them at the International Medical and Sanitary Exhibition in the South Kensington Museum next July and August.

Formerly (before 1857, when I made a specialty of the propagation of the best attainable vaccine virus, and its supply to the profession), it was the practice of American physicians to vaccinate by means of punctures, made with the point of an ordinary lancet, into which were inserted the pointed ends of little slips of quill. There were great objections to this method. The lips of the minute wound were kept apart, blood flowed freely, so freely as often to carry with it the dissolved lymph and induce failure of the operation. Even when this was not the case there was, unless the operator was exceptionally neat, skilful and careful, a slovenly and even shockingly sanguinary aspect to the affair. I have, when a student, repeatedly seen, in the office of our city vaccinating physician, a dozen squalling infants, many with the quill slips repeatedly floated out of the punctures and as often replaced, and *all* with little streams of blood running from each wound to the elbow, and often dropping on the floor or the mother's lap. This was, of course, public, routine, wholesale vaccination of the poor; but such scenes were far from uncommon in private practice. It is possible that some of the elders who may estimate the value and importance of an operation by the blood and suffering connected with it, regret this heroic period of American vaccination, and thank me but little for that change in the practice of vaccination, now universally adopted, which, when properly performed (and it requires extremely little skill and care to do it properly) is entirely free from pain and quite bloodless. The present method is by means of little transverse scratches, or rather incisions made with the rounded and moderately sharp point of a lancet, or, still better, that of one of my "*lancet points.*" To these little wounds or abrasions the virus on the sides of the point, previously slightly moistened and dissolved, is simply applied with slight pressure and rubbing.* Instead of

* The method of Vaccinating by application of the virus to minute scratches or incisions was one of the earliest suggested. It was chosen after very careful consideration of all the quite numerous published methods, and a full practical trial of all that merited any notice. I strongly commended it in a paper published in the "Boston Medical and Surgical Journal" some twenty years since, entitled "*How to Vaccinate; Cito, Tutè et Jucundè.*"

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the slips of quill I at first used and recommended little slips of ivory, exactly like, and indeed copied from those which that admirable institution, your English National Vaccine Establishment, has so long and largely issued, to the great convenience of the profession and the incalculable good of humanity. I made some inquiry, with a view to importing these slips or points from England, but found the price very high, and looked about for some one here who could make them more cheaply. I soon discovered a most ingenious manufacturer of ivory, who contrived an adaptation of machinery by which he produced most beautiful little "points" at a low price. As, however, a great many physicians still clung to the quill and puncture method, I contrived an improvement of the quill point, which proved of great importance, as it rendered vaccination with it much more frequently successful, and quite remedied the previous inevitable tendency to induce annoying and even injurious bleeding. This improvement consisted in simply cutting from the anterior or concave surface of the extreme point a thin wedge, leaving a surface, unlike the natural surface of the quill, to which dried virus adhered with perfect tenacity; and by making the point of quill as sharp and thin as that of the lancet by which the puncture was made, the lips of the latter were not forced apart. The minute triangular surface from which the little wedge had been cut came into close and immediate contact with the very bottom of the puncture, the very small particle of lymph firmly adherent to it was instantly dissolved and absorbed. The result was a certainty of success, an ease in operating, and a freedom from all bleeding (the point of the quill exactly occluding the puncture): quite without precedent. I found it extremely difficult to get people neat and patient enough to prepare these points of my contrivance. I made them myself, but as the demand for virus of my collection increased and other professional duties multiplied, the extremely tedious labour their production involved became very irksome. It was this, as well as a belief that an ivory point sharpened to exactly resemble a small lancet-blade would answer just as well for insertion into a puncture, as well as for use with the method by slight incisions—which I preferred—together with the conviction that such a "point" would furnish a perfect instrument for vaccination, an instrument used but once and thrown away, and thus free from all the possible and far from very uncommon perils incident to the use of rusty or imperfectly cleaned lancets, that induced me to endeavour to procure such points as I now employ. I made efforts to have them made by hand filing, but this involved far too great expense. It was not till my introduction of true animal vaccination into America (in September, 1870), and the introduction also of ivory points much larger than those ever *generally* used before,* that I determined to make serious and per-

That paper was widely quoted in other journals at the time, and its recommendations have been repeated a great many thousand times, in a little circular sent out with virus to every new correspondent. As a result the method is now almost universally practised in America. This is not the place to dilate on its many and manifest advantages over other ways of vaccinating.—M.

* The large points (the largest of the four sizes usually made) are now very generally, almost exclusively employed in the United States, I introduced them after inaugurating true animal vaccination here. The dried bovine lymph is less readily soluble than that of human origin. It should be moistened with tepid water and rubbed up into a solution on the

sistent effort to perfect the ivory point by having it made to resemble in shape the blade of a lancet. While full of this determination, my correspondent, the ivory manufacturer, visited Boston, and paid me the compliment to select me to remove a large adipose tumour from his neck. This brought me for the first time into personal contact with him, and gave me opportunity to talk fully and freely with him of my wishes as to the "lancet-point." I told him exactly what I wanted and why I wanted it, and that I would give him an order for half a million (500,000) large ivory points the moment he should assure me that he could adapt machinery to the production of just what I required at a moderate advance above the price charged for ordinary points of the same size. My operation on his neck was entirely satisfactory. He was anxious to oblige me, anxious, too, to work up about four (4) tons of small scrap-ivory, which had accumulated on his hands, which was worthless for ordinary uses, and setting his wits to work, in less than a month he sent me a hundred points exactly according to my requirements, and stated the price at which he could make them. I sent him the order for half-a-million of them. These and very nearly as many more have, since that time, been employed simply and solely in being charged from my heifers, for I never have issued any but charged points, those sent to you having always been ordered from the maker expressly for you. The understanding when I gave the large order was that these sharpened "points" should be made exclusively for me, the object being to distinguish points issued from my stables from those sent out by the thousand-and-one so-called "*rivals*" who, as soon as I had laboriously and firmly established animal vaccination here, and bade fair to reap some adequate harvest for the infinite labour of a lifetime, rushed into the field to rob me of what I had most fairly earned, and to *attempt* to steal from me even the credit of conferring on the profession aud people of America a benefit which, by-and-by, I feel sure they will begin to adequately appreciate. In the first they have succeeded better than they ought; in the latter, however, about which I care far more, I am happy to say they have failed utterly and ignominiously.

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flat of the "point" just before use. It is also best not only to merely *apply* the dissolved lymph *to* the slight incisions or abrasions through the epidermis, but to press it *into* them with the flat of the "point." *Omission to do this is the most fertile cause of reported inefficacy and uncertainty of bovine virus.* Good animal virus not only induces a very much more perfect and uniform development of VACCINA than that of *long* humanization, but if properly used, does so with as uniform and positive certainty in *primary* vaccination as the very best "arm to arm" lymph. In re-vaccination, its effects are vastly *more* certain and unfailing. The proper use of bovine virus in vaccination involves an amount of manipulation not so easily effected with the small as with the larger points. Although introduced with a special view to use with the bovine virus the latter have been found so convenient as to be now very generally used, no matter which form of virus is preferred, and the annual consumption of them is very large. Such large points are not of my invention. In Dr. Seaton's "Handbook of Vaccination," London, 1868 (a work which may well be called PERFECT in regard to every part of the subject except animal vaccination, and only defective there because the innovation was, when he wrote, most imperfectly developed and badly practised), on page 142, a little wo)dcut diagram is given of the ivory point in common use with the following remarks:—"They (the points) are generally cut of this size and shape, "but much larger points would be far preferable, and best of all are such points as Culy, "Marson, and others have had made for their own use, which have the size and shape of the "ordinary lancet, are in fact ivory lancets. This size, no doubt, would be inconvenient for "transmitting lymph, but I know no reason why much larger points than the present should "not be used." I have, for special purposes, procured the manufacture of much larger points than those which I commonly employ and issue, but the largest size of the four sizes usually made I have found to be the very best and most convenient for common use. The dimensions are 4 centimetres long and 6 millimetres wide.—M.

The ingenious manufacturer adhered to his engagement, but very soon he wrote me how frequent were orders for ivory "points" "just like Dr. Martin's," and how many he could sell if I would only let him ; and I waived all exclusive right in the matter, he now makes them for any who require them, although his four (4) tons of little scraps having been long since used up, at a price considerably higher than charged at first, but still far less than I was charged for the very small points such as issued by the National Vaccine Institution of England a dozen years since, and probably enough even now ; a price which Dr. Tompkins assured me was that paid by the Institution for the vast quantities it has issued.

I hope what I have written will serve your purpose. I shall feel much gratified if, having brought these "points" to your notice, and your publication of these hasty lines, should serve to introduce them to the notice of the English profession, eventually possibly to their general adoption, and thus enable me to discharge a little—a *very* little—of the great debt which America owes to England in all that concerns vaccination—as, indeed, in almost everything else.

Respectfully,

HENRY A. MARTIN, M.D.

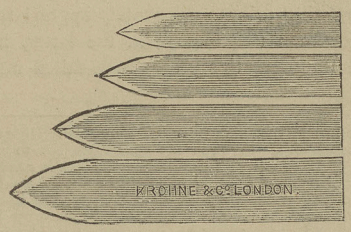
SIZES AND PRICES.

No. 1. 15/ per 1,000.

No. 2. 17/6 per 1,000.

No. 3. 20/ per 1,000.

No. 4. 35/ per 1,000.



Wholesale and Retail Agents for

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